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What's Become of Construction Types?*

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1. One attractive feature of classical transformational grammar (inherited from the earlier work of Zellig Harris) was that it promised to allow us to reconstruct the traditional notion of **construction (type)** within a formal theory of syntax. Pairs of examples like *(You are) eager to please* versus *(You are) easy to please* or *(the idea) that we should go* versus *(the idea) that we hit upon* could be analyzed as having the same lexical items, lexical category assignments, and constituent divisions within them, but as nevertheless representing syntactically distinct objects, differing analytically in the transformational rules invoked in their derivation.

A **construction type** (CT) in the sense I will use the term here is a cluster of syntactic properties (which I will call its **characteristic properties**, or CPs), involving one or more of the following: conditions on category membership of the participating constituents, conditions on the category membership of the whole construct, conditions on the distribution of morphosyntactic features in the constituents and/or construct, conditions on the appearance of 'grammatical' words or clitics, conditions on the co-occurrence of the construct with particular prosodies, and conditions on the linear ordering of the constituents. It must be possible for the CPs of different CTs to co-occur or to be overlaid on one another, so that a particular example can instantiate several CTs at once. *I was asked to go*, for instance, should be treated as an instance of at least six CTs: agentless passive, one type of infinitival complementation, object-controlled equi, subject-verb agreement, government of past participle verb forms by the passive auxiliary, and declarative clause.

CTs will have important properties beyond their CTs, of course. Thus, though the CPs of the *promise* + NP + VP[+INF] type and of the *ask* + NP + VP[+INF] type are virtually (if not fully) identical, the two constructions cannot be treated as identical for the purposes of reduced coordination, only the latter combines with a passive CT, and the two combine with a reflexive object in different ways:

(1) *I promised and asked Kim to go.

(2) a. *Kim was promised to go.
b. Kim was asked to go.

(3) a. I promised Kim to absent myself/*herself.
b. I asked Kim to absent *myself/herself.

The properties illustrated in (1)-(3) are at least arguably syntactic. But some of the further properties of CTs are lexical, and some are clearly semantic. The connection of CTs to the lexicon is through **subcategorization**; only certain lexical items can appear in

particular CTs. The connection to semantics is twofold. Most strikingly, it comes through distinctions in **compositional semantics**, with different CTs being associated with distinct interpretations.

Thus the four CTs in (4) have the same CPs, but are understood in rather different ways. In all except (4c), the NP and VP[+INF] are understood as logical subject and predicate, respectively, in a proposition P that functions as the Patient of the verb's action; (4c) is also understood as having such a Patient proposition P, but P's argument is represented not by the NP in (4), but instead by the subject NP of the mother VP in (4). (These facts might be taken to be the basis for an account of the reflexivization data in (3).) Next, in (4b) and (4c), but not in the other CTs, the NP in (4) refers to the Recipient of the verb's action and the subject of P is understood to be an Agent. (As a result, these constructions are odd with an inanimate, dummy, or idiom-chunk NP, as in (5).) Finally, the CT in (4d) differs from the one in (4a) in conveying the additional assumption that P refers to a currently obtaining state; the CT in (4a) is consistent with such an assumption but does not require it, as I illustrate in (6). (These observations are not intended to constitute an informal sketch for a formal account of the semantics of (4a)-(4d); I am maintaining only that the aspects of meaning I have mentioned must be in some way derivable from a semantic description of these CTs.)

(4) VP ---> V NP VP[+INF]

a. V: expect, force, like, want,...
b. V: ask, tell, request, persuade,...
c. V: promise
d. V: believe, know, imagine, consider,...

(5) a. ??I asked/promised the rock to sing.
b. ??I asked/promised there to be rain. ??I asked/promised it to rain.
c. ??I asked/promised tabs to be kept on Sandy.

(6) a. I expect/believe { Kim to { be shy. / be a spy. / be the Senator from Kansas. / be taking a nap. / have won often. / have no friends. / need money. / constitute a problem for us. } / it to be raining. }

b. I expect/??believe { Kim to { win often. / go to work by bus. / have a party every week. } / it to rain very little in Beijing. }

The other connection to semantics is in **word semantics**. On the whole, the lexical items subcategorized to occur in a particular CT form a

natural semantic class. I am not claiming that subcategorization classes are **identical** to semantic classes, only that there are default relationships between them, which can be expressed implicationally. We expect future-oriented verbs like *expect* and *want* to occur in the CT of (4a) and simple 'mental action' verbs like *think* and *imagine* to occur in the CT of (4d), for instance, but there can be exceptions--like the future-oriented *try*, which nonetheless fails to occur in the CT of (4a), and the mental-action verb *reflect*, which nonetheless fails in occur in the CT of (4d).

(7) a. *Robin tried Sandy to run faster.
b. *Robin reflected Sandy to be a spy.

2. The reconstruction of the notion of CT in classical TG is hampered by the framework's distinction between two types of rules (phrase structure rules describing deep structures, transformational rules deriving surface structures) and by the existence, in most detailed descriptions, of 'clean-up' transformations of various sorts. Both factors work against the simple identification of CT with transformational rule.

In early GPSG (Gazdar 1982) these difficulties are to some extent averted, and it becomes possible to view each immediate dominance rule as a description of a CT. (It is not the case that to every CT there corresponds an ID rule, since agreement and linear precedence are described by conditions distinct from ID rules, and government ought, in my view, to be as well.) In the GPSG literature of the period there are frequent occurrences of distinct ID rules with identical categorial content, along the lines of (8), the parts of which correspond to the parts of (4). Two things distinguish one such ID rule from another: its index and its translation principle.

(8) a. $\langle 17, VP \text{ ---> } V, NP, VP[+INF], t_{17} \rangle$
b. $\langle 18, VP \text{ ---> } V, NP, VP[+INF], t_{18} \rangle$
c. $\langle 19, VP \text{ ---> } V, NP, VP[+INF], t_{19} \rangle$
d. $\langle 20, VP \text{ ---> } V, NP, VP[+INF], t_{20} \rangle$

The indices for each ID rule serve as lexical subcategorization features. The verb *expect* then has [17] as one of its syntactic features in the lexicon, and *believe* has [20] as one of its features. (Lexical redundancy rules can state default relationships between aspects of the lexical semantics of a verb and these syntactic features.)

3. It has been observed by a number of critics that statements like those in (8) are redundant, since each index serves simply to pick out a particular translation principle. If we eliminate this redundancy, and just have lexical entries refer directly to translation principles, then there is no reason to have separate ID rules. The result is the scheme advocated by Klein and Sag (1985) and adopted in two different variants by Gazdar et al. (1985) and Pollard (1984), a scheme in which there is only one ID rule for the CTs in (4). Dowty's (1985) approach also would have only one ID rule, lexical entries for the different verb classes differing not in the compositional semantic principles they call up but in their lexical semantic content. These

details, though important in other contexts, do not matter here. What is relevant is the fact that these approaches posit only one syntactic rule for the four CTs, so that each ID rule no longer represents exactly one CT.

So much the worse for our pretheoretical notion of construction type, you might say. If an adequate analysis for the syntactic, semantic, and lexical facts can do quite well with only a single ID rule, then perhaps we need to revise our view of CTs.

But distinctions between CTs could have reflexes in parts of grammar other than syntax, semantics, and the lexicon--in particular, in **phonology.** And they could have reflexes in extragrammatical domains, in particular in **pragmatics**, understood very broadly.

First, a few words about phonology. The syntactic structures assigned by the four rules in (8) are identical. The only difference between structures with *expect*, *ask*, *promise*, or *believe* in them lies in the syntactic features of the verbs themselves, that is, the features [17], [18], [19], and [20]. As the details of the Celtic consonant mutations make clear, individual syntactic features can condition or constrain (mor)phonological rules. However, I know of no phonological consequences of the differences among the putative features [17]-[20] in English. This is only, of course, absence of evidence that there are distinct features, not evidence of nondistinctness.

Now, pragmatics, understood (disjunctively) as encompassing linguistic markings of social group membership, styles and registers, discourse organization, and interactional roles. Pragmatics (in this sense) is relevant to the CT issue by virtue of the following fundamental assumptions:

(9) a. Any linguistic item--lexical item, syntactic construction, morphological rule, prosodic pattern, or phonological rule--can be invested with a pragmatic value.

b. And an utterance has a pragmatic value (only) by virtue of the pragmatic value of the linguistic items realized in it.

So if we find a pragmatic value associated with a structure only when it has certain words, and not others, in one of its slots, we are entitled to assume that there is some difference in linguistic items that distinguishes the two situations.

In the example at hand, there are special pragmatic values associated with the structure of (4) and (8) in the *believe*, or (d), case. The existence of these values then supports the claim that there is more than one linguistic item, in particular more than one CT, here.

The (d) case differs pragmatically, from the other three, and from constructions involving mental-action verbs like *believe* with finite-clause complements, in two ways, its stylistic level and its discourse functions. Stylistically, (10) must be classified as formal, in contrast to the neutral (11) and (12).

(10) I believed/considered/understood Gerry to be a Ruritanian spy.

(11) I believed/considered/understood that Gerry was a Ruritanian spy.

(12) a. I expected/intended/caused Gerry to be a Ruritanian spy.
b. I asked/convinced/told Gerry to be a Rurtitanian spy.
c. I promised Gerry to be a Ruritanian spy.

In addition, (10) is in some sense more 'about' the referent of its NP object (at least when there is a concrete referent) than the sentences in (11) and (12) are. In consequence, the *believe* construction is odd when the referent of this NP is inherently unlikely to be topical, as in (13), and when it is not topical in the discourse context, as in (14).

(13) ?I believe some anonymous peasant to have written these verses.

(14) a. I treasure every moment I spend with my friends Kim, Sandy, and Robin. They truly enjoy life. ?And I believe their dog Arf to be rather amusing.
b. I treasure every moment I spend with my friends Kim, Sandy, and Robin. They truly enjoy life. And I believe that their dog Arf is rather amusing.

The upshot of this discussion is that I view with some suspicion the move that has been made within GPSG and categorial grammar to describe categorially identical constructions via a single syntactic rule, and to treat the differences among such constructions entirely as differences in their semantic values (whether compositional or lexical). Earlier versions of GPSG, in which each ID rule could be taken as representing a single CT, seem to me to be nearer the mark, and easier to integrate with phonology and with the various extragrammatical domains subsumed under the general heading of pragmatics.

(One might have thought from its name that Grammatical Construction Theory, as in Lakoff (1984), would take a position similar to the one I am favoring here. But in fact this framework, like recent GPSG and categorial grammar, abstracts syntactic forms, to the point of treating deictic *there* constructions and expletive *there* constructions as instances of the same structural category, differing only in their semantics.)

I have also stressed the potential of phonology and pragmatics as checks on the adequacy of analyses framed on syntactic and semantic grounds, a potential that results from the observation that phonology and the various domains of pragmatics use--assign values to--the material provided by syntax.

Note

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